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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/746,924	12/22/2000	Gopal Parupudi	MS1-696US	3998

22801 7590 08/01/2003

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EXAMINER

PILLAI, NAMITHA

ART UNIT	PAPER NUMBER
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2173

DATE MAILED: 08/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/746,924

Applicant(s)

PARUPUDI ET AL.

Examiner

Namitha Pillai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) 17-19, 28-30, 38, 39, 45 and 46 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract is objected to for exceeding 150 words.

Claim Objections

2. Claims 17-19, 28-30, 38, 39, 45 and 46 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 6-7, 9-19, 31, 35, 38-40, 42 and 44-47 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by U. S. Patent No. 6,522,875 B1 (Dowling et al.).

Referring to claim 1, Dowling discloses a method of operating a portable computing device by first determining a location of this portable device (column 4, lines 24-25), acquiring digital data associated with the determined location (column 4, lines 24-27) and that can permit the portable computing device to interact with a location environment and interacting with the location environment based on the acquired digital data. See column 4, lines 21-29.

Referring to claim 6, Dowling discloses receiving location information from multiple different location providers, the information represented as transmissions from the local broadcast domain entity and based on this transmission information (column 6, lines 49-54), determining the location or the local broadcast domain (column 6, lines 48-65).

Referring to claim 7, as seen in Figure 1 of Dowling, of the means by which a mobile unit, without connection to any particular system, would access domain data, separate from the mobile unit (reference number 105 and 145, Figure 1), wherein the information would be received wirelessly from multiple different location providers the information represented as transmissions from the local broadcast domain entity and based on these transmission information, determining the location or the local broadcast domain (column 6, lines 48-65).

Referring to claims 9 and 10, Dowling discloses that the digital data comprises data used to render a Web page, wherein the user can interaction with this Web page (column 1, lines 8-12).

Referring to claim 11, Dowling discloses pointers that reference software code that can be downloaded, the software coded represented as the HTML code which would be downloaded

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in reference to the downloading of the web pages (column 4, lines 21-26), wherein as stated earlier by Dowling, the connection and hence the downloading from the server to the mobile device would be through a wireless connection (column 5, lines 66-67).

Referring to claim 12, Dowling discloses using pointers to access and load the software code on the device and executing the software code on the device, wherein displaying of the web pages involve execution of the corresponding HTML code (column 15, lines 17-42).

Referring to claims 13 and 42, Dowling discloses using pointers to access and load the software code on the device and executing the software code on the device (column 15, lines 20-24), wherein displaying of the web pages involve execution of the corresponding HTML code in the runtime environment, which would be the web browser, used to run the web page applications (column 15, lines 17-42).

Referring to claim 14, Dowling discloses that the digital data comprises applets, which has explained by Dowling is represented as the application data within the web pages, that are executed on the device (column 15, lines 30-36).

Referring to claim 15, Dowling discloses downloading the applets into the mobile unit, and viewing the data through the output device, this viewing including locally executing these applets (column 15, lines 30-39).

Referring to claim 16, Dowling discloses acquiring the digital data via the Internet through a wireless connection (column 5, lines 66-67 and column 6, lines 14-16).

Referring to claims 17, 18, 38, 39, 45 and 46, Dowling discloses a handheld portable computing device programmed with instructions to implement the method stated in claims 1, 31 and 40 (column 7, lines 20-25).

Referring to claims 19, Dowling discloses computer-readable media with computer readable instruction which would be used in the laptop and dash-mounted vehicle computers, wherein the instruction would carry out the methods as stated in claim 1 (column 7, lines 22-25).

Referring to claim 31, Dowling discloses determining the device's location and generating a service query that is configured to identify services that are associated with the location (column 4, lines 21-26). Dowling discloses the communication involving wireless connections, wherein any communication with the client/mobile unit and server would be through a wireless connection, as applied to any queries to the server (column 5, lines 66-67). Dowling discloses receiving a response from the server, which contains the digital data represented as web applications or applets that can be executed by the device, wherein the execution would be necessary to display the web page, and providing location specific service. Dowling also discloses locally executing the web applications to interact with a location environment. See column 15, lines 33-36.

Referring to claim 35, Dowling discloses using digital signed applets and authenticating the digital data that is being accessed by the mobile unit, wherein this digital data can be web applications and web pages, wherein the display of these pages, involve the execution of these applications on the device (column 18, lines 28-35).

Referring to claim 40, Dowling discloses a means through which to wirelessly receive location information and ascertain a location associated with the location information, wherein as seen by Figure 1, the connection with a mobile unit is a wireless connection, through which the location information is acquired (column 6, lines 50-65). Dowling discloses means for receiving and managing applets or web applications that can be wirelessly accessed, the wireless

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connection being obvious for mobile units, and that pertain to a location and the web applications allowing the users to interact with the location environment through a mobile unit (column 15, lines 30-35).

Referring to claim 44, Dowling discloses establishing wireless communication with a network so that applets or web applications can be wirelessly received (column 5, lines 66-67).

Referring to claim 47, Dowling discloses a means through which to wirelessly receive location information and ascertain a location associated with the location information, wherein as seen by Figure 1, the connection with a mobile unit is a wireless connection, through which the location information is acquired (column 6, lines 50-65). Dowling discloses means for receiving and managing applets or web applications that can be wirelessly accessed, the wireless connection shown for mobile units on Figure 1 (reference number 105 and 145), and that pertain to a location and the web applications allowing the users to interact with the location environment through a mobile unit (column 15, lines 30-35). Dowling discloses using pointers to access and load the software code on the device and executing the software code on the device (column 15, lines 20-24), wherein displaying of the web pages involve execution of the corresponding HTML code in the runtime environment, which would be the web browser (column 16, lines 30-35), used to run the web page applications based on information to interact with the location (column 15, lines 17-42). Dowling discloses maintain a cache of the web application including any applets information, wherein the information can be cached for use on the device (column 15, lines 39-41). Dowling discloses establishing wireless communication with a network so that applets or web applications can be wirelessly received (column 5, lines 66-67).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-5, 8, 20-21, 23-27, 30, 32-34, 36, 41, 43 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dowling and U. S. Patent No. 6,343,291 B1 (Goldman).

Referring to claims 2, 32, 41 and 48, Dowling discloses accessing a "list/database" containing information concerning physical and logical locations and accessing this information (column 11, lines 55-65). But Dowling does not disclose that these databases are hierarchical tree structures, wherein the nodes would be traversed to access the information concerning the device location, as stated in the claims. Goldman discloses creating and using an organized hierarchical structure with nodes representing location based information, wherein the tree would be traversed to access a specific node containing the information that is needed (column 2, lines 56-64 and column 9, lines 9-10). It would have been obvious for one skilled in the art, at the time of the invention to learn from Goldman to implement a hierarchical structure to represent the physical or logical locations, wherein information concerning the location of the device would be accessed by traversing the structure. Dowling discloses using some kind of database storage structure to store and access the information necessary to access and display the service information to a user. Goldman clearly teaches taking such a database and using a hierarchical structure, wherein this hierarchical structure would provide a better-organized structure, with a

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meaningful organization method, wherein the information can be easily accessed (column 5, lines 37-40).

Referring to claim 3, Dowling and Goldman disclose accessing a database structure that is a hierarchical tree structure locally (Dowling, column 4, lines 41-45).

Referring to claim 4, Dowling and Goldman also disclose a central database server, serving as a source remote from the device, with the database structure being a hierarchical tree structure (Dowling, column 4, lines 33-35).

Referring to claim 5, Dowling and Goldman disclose accessing the remotely located information through a wireless connection, wherein the information includes database structures that are hierarchical trees (column 5, lines 66-67 and column 4, lines 33-35).

Referring to claims 8 and 33, Dowling discloses receiving location information from multiple different location providers, the information represented as transmissions from the local broadcast domain entity and based on this transmission information, determining the current location or the local broadcast domain (column 6, lines 48-65). Dowling discloses accessing a "list/database" containing information concerning physical and logical locations and accessing this information (column 11, lines 55-65). But Dowling does not disclose that these databases are hierarchical tree structures, wherein the nodes would be traversed to access the information concerning the device location, as stated in the claims. Goldman discloses creating and using an organized hierarchical structure with nodes representing location based information, wherein the tree would be traversed to access a specific node containing the information that is needed (column 2, lines 56-64 and column 9, lines 9-10). It would have been obvious for one skilled in the art, at the time of the invention to learn from Goldman to implement a hierarchical structure

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to represent the physical or logical locations, wherein information concerning the location of the device would be accessed by traversing the structure. Dowling discloses using some kind of database storage structure to store and access the information necessary to access and display the service information to a user. Goldman clearly teaches taking such a database and using a hierarchical structure, wherein this hierarchical structure would provide a better-organized structure, with a meaningful organization method, wherein the information can be easily accessed (column 5, lines 37-40).

Referring to claim 20, Dowling discloses acquiring applets, represented as the web applications, which can be downloaded, associated with a determined location (column 15, lines 33-36). Dowling discloses downloading the applets into the mobile unit, and viewing the data through the output device, this viewing including locally executing these applets (column 15, lines 30-39), allowing for the user to interact with the web page. Dowling discloses accessing a "list/database" containing information concerning physical and logical locations and accessing this information (column 11, lines 55-65). But Dowling does not disclose that these databases are hierarchical tree structures, wherein the nodes would be traversed to access the information concerning the device location, as stated in the claims. Goldman discloses creating and using an organized hierarchical structure with nodes representing location based information, wherein the tree would be traversed to access a specific node containing the information that is needed (column 2, lines 56-64 and column 9, lines 9-10). It would have been obvious for one skilled in the art, at the time of the invention to learn from Goldman to implement a hierarchical structure to represent the physical or logical locations, wherein information concerning the location of the device would be accessed by traversing the structure. Dowling discloses using some kind of

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database storage structure to store and access the information necessary to access and display the service information to a user. Goldman clearly teaches taking such a database and using a hierarchical structure, wherein this hierarchical structure would provide a better-organized structure, with a meaningful organization method, wherein the information can be easily accessed (column 5, lines 37-40).

Referring to claims 21, 36 and 43, Dowling discloses maintaining a cache of the web application including any applets information, wherein the information can be cached for use on the device (column 15, lines 39-41).

Referring to claim 23, Dowling discloses a request or query used to identify particular web applications that are associated with the location (column 15, lines 33-36).

Referring to claim 24, Dowling discloses querying a server to ascertain applets that are associated with the location and that provide a location specific service (column 4, lines 21-30 and column 15, lines 33-36).

Referring to claim 25, Dowling discloses receiving a response from the server that contains digital data associated with services that are provided for that location (column 10, lines 13-38).

Referring to claims 26 and 34, Dowling discloses accessing web applications, applets represented as web pages, thereby inherently suggesting the presence of URLs that would be associated with this digital data (column 10, lines 34-37).

Referring to claim 27, Dowling discloses digital data that comprises applets or web applications as disclosed by Dowling, wherein these web applications are associated with the current location (column 15, lines 34-36).

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Referring to claims 28, 29, Dowling discloses a handheld portable computing device programmed with instructions to implement the method stated in claim 20 (column 7, lines 20-25).

Referring to claim 30, Dowling discloses computer-readable media with computer readable instruction which would be used in the laptop and dash-mounted vehicle computers, wherein the instruction would carry out the methods as stated in claim 20 (column 7, lines 22-25).

5. Claims 22 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dowling and Goldman as applied to claims 21 and 36, and further in view of "Computer Maintenance, Part 1 First Step: Spring Cleaning" (Jennifer Fulton).

Referring to claims 22 and 37, Dowling discloses downloading new information when the device changes location but Dowling does not disclose what is done with the old information that has been stored in cache (column 11, lines 19-22). Dowling and Goldman do not disclose means for removing the cache data when a device location changes, and certain data is not needed anymore, as stated in the claims. Fulton discusses how information, especially concerning web applications are removed from cache when they are not deemed necessary (page 2, column 1, lines 38-42 and column 2, lines 1-6). It would have been obvious for one skilled in the art, at the time of the invention to learn from Fulton to have a means for removing the cache that has been collected, when the device changes locations. Fulton discloses such a means for removing cache so that unnecessary information will not be present in a client system, such as the mobile unit of Dowling and Goldman's invention, wherein the unnecessary information must be removed in an effort to provide space for the new data that is downloaded as a result of the

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device changing location. Such a mobile unit, would greatly benefit from having such a removal system, leaving space for much needed information, especially concerning the mobile unit's current environment and the needs of its users. Hence, one skilled in the art, at the time of the invention would have been motivated to learn from Fulton to implement a means for removing unnecessary cache information, to provide more space for the new data that is downloaded and stored in cache when the device has changed its location.

Conclusion

6. The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to consider these references fully when responding to this action. The documents cited therein teach the method for operating a mobile unit based on location.

Responses to this action should be mailed to: Commissioner of Patents and Trademarks, Washington D.C. 20231. If applicant desires to fax a response, (703) 746-7238 may be used for formal After Final communications, (703) 746-7239 for Official communications, or (703) 746-7240 for Non-Official or draft communications. NOTE: A Request for Continuation (Rule 60 or 62) cannot be faxed.

Please label "PROPOSED" or "DRAFT" for informal facsimile communications. For after final responses, please label "AFTER FINAL" or "EXPEDITED PROCEDURE" on the document.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

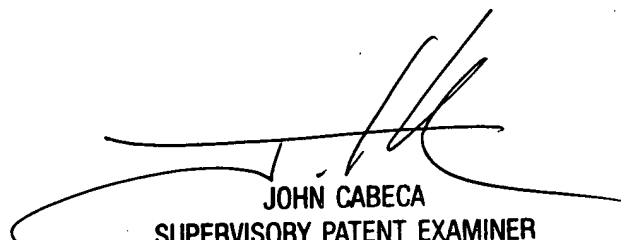
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Namitha Pillai whose telephone number is (703) 305-7691. The examiner can normally be reached on 8:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (703) 308-3116.

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3800.

Namitha Pillai
Assistant Examiner
Art Unit 2173
July 24, 2003



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